

# MEDICINE TODAY

Current comment on medical progress, discussion of selected topics from recent books or periodic literature, by contributing members. Every member of the California Medical Association is invited to submit discussion suitable for publication in this department. No discussion should be over five hundred words in length.

**The "Crystalloid Frog."**—Many puzzling phenomena in theoretical and practical medicine depend for their interpretation on a determination of the relative rôle of fixed-tissues and body fluids. Such determinations have heretofore been attempted solely with isolated organs and tissues. A technique applicable to the whole animal has been recently tested.

Kritschewski and Friede<sup>1</sup> perfused frogs free from recognizable blood, and performed tests on the resulting "crystalloid frogs," Locke's solution being the usual blood substitute. Control crystalloid frogs remain alive for from four to ten days. They report the production of fatal anaphylaxis in crystalloid hypersensitive frogs, with no recognizable anaphylactic reaction in normal crystalloid controls.

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## REFERENCE

1. Kritschewski, I. L., and Friede, K. A.: *Zeitschr. f. Immunitätsf.*, vol. 50, p. 489, 1927.

## Ophthalmology

**Phlyctenular Keratitis.**—Phlyctenular keratitis (eczematous, scrofulous or strumous keratitis) is a common disease of the eyes, especially in childhood, and is characterized by the development of a phlyctenule on the cornea. The phlyctenule is usually situated near the limbus and consists of a collection of round cells beneath the epithelium, which is elevated. The phlyctenule varies in size from a poppy seed to a millet seed and changes in color from gray to yellow in a few hours. It soon bursts, leaving a small ulcer. There may be only one phlyctenule affecting one eye or there may be six or eight on each cornea. If the ulceration is superficial, very little scar tissue is left and this usually disappears entirely in a few months. On the other hand, if the ulceration becomes deep and spreads, as it frequently does, a deep, dense scar develops or a perforation of the cornea occurs, allowing a prolapse of the iris. These ulcerations may occur in the pupillary area, seriously impairing vision because of the resulting scars. Blood vessels may come in from the limbus, producing a fascicular keratitis.

Phlyctenular keratitis is accompanied by photophobia, blepharospasm and increased lacrimation. It should not be difficult to diagnose, as about the only thing it might become confused with is an interstitial keratitis, which can easily

be eliminated, as the cornea at no time stains in interstitial keratitis.

These cases of phlyctenular keratitis should be considered serious from the standpoint of vision and treated vigorously to prevent the formation of scars and possible perforation. The corneal inflammation is only a manifestation of a systemic condition; the underlying cause, in the great majority of cases, is an active tuberculosis. As these patients are undernourished and come from unhygienic surroundings, most of them have hypertrophied tonsils and adenoids and many of them have some form of sinus disease, which is manifested by a running nose and an eczema around the nostrils.

Local treatment to the eye consists of a full dilatation of the pupil with atropin, keeping the pupil thoroughly dilated until the sclera becomes white.

**Constitutional Treatment.** Each patient should have a thorough physical examination by a competent tuberculosis specialist and should receive the same constitutional treatment as if affected with tuberculosis: that is, change of surroundings; fresh air and sunshine, nourishing food, clearing up of all foci of infection, such as removal of tonsils and adenoids. In other words, everything possible should be done to build up a child's resistance. If an active tuberculous lesion is demonstrated, it frequently recovers rapidly under a tuberculin treatment.

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## Tuberculosis

**The So-Called Filterable Tuberculosis Virus.**—Calmette<sup>1</sup> and his coworkers recently claimed that Fontes' "hypothesis" stated in 1910, regarding the filterability of the tuberculosis virus, has been substantiated. Likewise, denial is made that such observations may be due to faulty technique as suggested by Cooper and Petroff.<sup>2</sup> Evidently, decisive conclusions cannot be drawn at present from the peculiar lesions and the irregular occurrence of acid-fast bacilli following inoculations with filtrates of tubercle bacilli cultures. Pertinent to such discussion are the studies of Eberson<sup>3</sup> of the Medical School and the George Williams Hooper Foundation for Medical Research of the University of California, with toxic filtrates of the tubercle bacillus and the apparent identification of a skin-reacting substance present in sera from tuberculous patients and animals. This author did not find tubercles or acid-fast bacilli in the tissues or the lymph nodes of guinea pigs despite the injection of considerable amounts of filtered material. Further-